

CLAIMS

1. A method for upgrading a hearing aid device, said method comprising:

(a) reading device information from the hearing aid device;

5 (b) sending the device information to a hearing aid upgrade server via a network;

(c) subsequently receiving upgrade data from the hearing aid upgrade server via the network; and

(d) upgrading the hearing aid device based on the upgrade data.

10 2. A method as recited in claim 1, wherein said upgrading (d) comprises programming the hearing aid device in accordance with the upgrade data.

3. A method as recited in claim 2,

15 wherein said method is performed by a local programming station that operatively connects to the hearing aid upgrade server via the network, and

wherein the local programming station is operatively connected to the hearing aid device.

20 4. A method as recited in claim 3, wherein the local programming station is provided at a hearing aid dispensing office.

5. A method as recited in claim 1, wherein the hearing aid device comprises a reprogrammable memory, and

25 wherein said upgrading (d) comprises programming the reprogrammable memory of the hearing aid device.

6. A method as recited in claim 5, wherein said programming of the reprogrammable memory operates to store an algorithm in the hearing aid device, the algorithm being used to enhance sound signals for a user of the hearing aid device.

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7. A method as recited in claim 6, wherein the network is the Internet, and wherein said method is implemented by a computer.

8. A method as recited in claim 1, wherein the network is the Internet.

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9. A method as recited in claim 1, wherein said method is implemented by a computer.

10. A method for upgrading a hearing aid device, said method comprising:
connecting the hearing aid device to a hearing aid programming system;

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electronically reading device information from the hearing aid device to the hearing aid programming system;

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coupling the hearing aid programming system to a remote hearing aid upgrade server through a network;

requesting upgraded software for the hearing aid device from the remote hearing aid upgrade server based on the device information;

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receiving, at the hearing aid programming system, upgraded software for the hearing aid device from the remote hearing aid upgrade server through the network; and

installing the upgraded software for the hearing aid device in the hearing aid device, whereby the hearing aid device thereafter operates in accordance with the upgraded software.

11. A method as recited in claim 10, wherein said method further comprises:

5 determining whether the hearing aid device is suitable for upgrade based on the device information.

12. A method as recited in claim 10, wherein said method further comprises

entering at least a password into the hearing aid programming system;

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validating the password at the remote hearing aid upgrade server.

13. A method as recited in claim 12, wherein said validating of the password must be successful in order for said receiving of the upgraded software to be performed.

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14. A method as recited in claim 10, wherein the hearing aid device comprises a reprogrammable memory, and

wherein said installing comprises programming the reprogrammable memory of the hearing aid device in accordance with the upgraded software.

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15. A method as recited in claim 14, wherein said programming of the reprogrammable memory operates to store the upgraded software in the hearing aid device, the upgraded software being used to enhance sound signals for a user of the hearing aid device.

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16. A method as recited in claim 10, wherein the network is the Internet.

17. A method as recited in claim 10, wherein said reading is performed by electronically reading the device information.

18. A method as recited in claim 17, wherein the device information
5 comprises a model indication and a serial number.

19. A method as recited in claim 10, wherein said requesting of the upgraded software sends the device information to the remote hearing aid upgrade server.

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20. A method as recited in claim 19,
wherein said receiving comprises receiving returned device information from the remote hearing aid upgrade server through the network, and

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wherein said installing operates to install the upgraded software in the hearing aid device only when the device information obtained by said reading matches the returned device information.

21. A method as recited in claim 10, wherein said method further comprises:

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displaying a notification message that the hearing aid device has been modified such that refitting is needed.

22. A method for providing software to upgrade a hearing aid device from a remote hearing aid server, said method comprising:

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receiving a request from a requesting machine to upgrade software for the hearing aid device;

receiving device information for the hearing aid device from the requesting machine;

determining appropriate upgraded software for the hearing aid device based on the device information; and

sending the appropriate upgraded software to the requesting device, whereby the appropriate upgraded software is thereafter installed on the hearing aid device.

23. A method as recited in claim 22, wherein the device information is electronically read from the hearing aid device.

24. A method as recited in claim 22, wherein said method further comprises:

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sending returned device information to the requesting device.

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25. A method as recited in claim 24, wherein said method further comprises:

comparing the returned device information with the device information for the hearing aid device available from said receiving of the device information.

26. A method as recited in claim 25, wherein said method further comprises:

preventing said sending the appropriate upgraded software to the requesting device when said comparing indicates that the returned device information does not match the device information for the hearing aid device available from said receiving of the device information.

27. A method as recited in claim 22, wherein said method further comprises:

receiving a password provided by a requestor at the requesting device
and

validating the requestor based on the received password.

- 5 28. A method as recited in claim 27, wherein said method further
comprises:

preventing said sending of the appropriate upgraded software to the
requesting device when said validating indicates that the requestor is not
validated.

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29. A computer readable medium including at least computer program
code for upgrading a hearing aid device, said computer readable medium
comprising:

15 computer program code for reading device information from the
hearing aid device;

computer program code for sending the device information to a hearing
aid upgrade server via a network;

computer program code for subsequently receiving upgrade data from
the hearing aid upgrade server via the network; and

20 computer program code for upgrading the hearing aid device based on
the upgrade data.

30. A computer readable medium including at least computer program
code for upgrading a hearing aid device, said computer readable medium
25 comprising:

computer program code for connecting the hearing aid device to a
hearing aid programming system;

computer program code for electronically reading device information from the hearing aid device to the hearing aid programming system;

computer program code for coupling the hearing aid programming system to a remote hearing aid upgrade server through a network;

5 computer program code for requesting upgraded software for the hearing aid device from the remote hearing aid upgrade server based on the device information;

computer program code for receiving, at the hearing aid programming system, upgraded software for the hearing aid device from the remote hearing aid upgrade server through the network; and
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computer program code for installing the upgraded software for the hearing aid device in the hearing aid device, whereby the hearing aid device thereafter operates in accordance with the upgraded software.

31. A computer readable medium including at least computer program code for upgrading a hearing aid device from a remotely located hearing aid server, said computer readable medium comprising:
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computer program code for receiving a request from a requesting machine to upgrade the hearing aid device;

20 computer program code for receiving device information for the hearing aid device from the requesting machine;

computer program code for determining appropriate upgrade data for the hearing aid device based on the device information; and

computer program code for sending the appropriate upgrade data to
25 the requesting device, whereby the appropriate upgrade data is thereafter installed on the hearing aid device.

32. A hearing aid upgrade server apparatus, comprising:

means for receiving a request from a requesting machine to upgrade software for the hearing aid device;

5 means for receiving device information for the hearing aid device from the requesting machine; ~

means for determining appropriate upgraded software for the hearing aid device based on the device information; and

10 means for sending the appropriate upgraded software to the requesting device, whereby the appropriate upgraded software is thereafter installed on the hearing aid device.

33. A hearing aid upgrade server apparatus as recited in claim 32, wherein said apparatus further comprises:

15 means for authenticating a requestor initiating the request from the requesting machine.